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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|------------------------------|------------------------|
| 10/059,982 | 01/29/2002 | Danielle A. Thomas | 98-C-152C1 (STMI01-00043) | 8483 |
| 30425 7590 02/05/2009 STMICROELECTRONICS, INC. MAIL STATION 2346 1310 ELECTRONICS DRIVE CARROLLTON, TX 75006 | | | EXAMINER TRINH, HOA B | |
| | | | ART UNIT 2893 | PAPER NUMBER |
| | | | MAIL DATE 02/05/2009 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/059,982 | Applicant(s) THOMAS, DANIELLE A. | |
| | Examiner HOA B. TRINH | Art Unit 2893 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 14-27 is/are pending in the application.
- 4a) Of the above claim(s) 9 and 14-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 14-21, 24-27 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected group, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 02/15/2008.
2. Applicant's election with traverse of Group I, claims 1-8, in the reply filed on 02/15/08 is acknowledged. Applicants do not provide reason for the traversal is on the ground(s). The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
 1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

Art Unit: 2893

claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tartagni et al. (6,114,862) in view of Rhodes (6,852,591)

As to claims 1, 6, Tartagni discloses an integrated circuit structure having a capacitive electrode 23, 24 (fig. 1-4) proximate to a sensing surface (fig. 1-4) on which an object is placed, the capacitive electrode 23, 24 (fig. 1-4) forms a capacitor 20 (fig. 1-4) with the object; a dielectric (fig. 1-4) underlying the electrode 23, 24 (fig. 1-4) for forming a capacitor 20 (fig. 1-4); and an active region (fig. 1-4) underlying the dielectric (fig. 1-4), except that the electrode (fig. 1-4) and all conductive regions are formed of a conductive material, tungsten .

However, Rhodes discloses, as to claims 1, 6, an integrated circuit structure having a capacitive electrode 160 (fig. 14) proximate to a sensing surface 116 (fig. 14) on which an object is placed, the capacitive electrode 160 (fig. 14) forms a capacitor 162 (fig. 14) with the object; a dielectric 158 (fig. 14) underlying the electrode 160 (fig. 14) for forming a capacitor 162 (fig. 14); and an active region 108 (fig. 14, col. 8, lines 62-65) underlying the dielectric 158 (fig. 14) wherein the electrode 160 (fig. 14) and all conductive regions 160, 156, and/or 108 (fig. 14) are formed of a conductive material, tungsten (col.9, lines 65-67 and col. 10, line 24) that has a hardness greater than aluminum.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the material for the conductive regions of Tartagani with the material, as taught by Rhodes, for providing a sturdy structure in the device.

As to claim 2, Rhodes discloses the electrode 160 and the conductive region 156 are formed of a conductive material that is as great as a hardness of the dielectric 158 (fig. 14).

As to claim 3, Rhodes discloses a passivation layer 164 (fig. 14) over the electrode 160 (fig. 14), the passivation layer 164 (fig. 14) forming the sensing surface, wherein the electrode 160 (fig. 14) and the conductive regions 156 are formed of material that is as great as a hardness of the passivation layer (col. 10, lines 31-32).

As to claim 5, Rhodes discloses the structure includes a tungsten via 150 (col. 9, lines 50-55) which includes the interconnect 150 (fig. 14).

As to claim 7, Rhodes discloses the structure includes a tungsten contact 150 (fig. 14).

As to claim 8, Rhodes discloses the active region 108 (col. 8, lines 62-65, fig. 14) is a gate electrode.

Response to Arguments

Applicant's arguments with respect to claims 1-8 have been considered but they are moot in view of the new rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to (Vikki) Hoa B. Trinh whose telephone number is (571) 272-1719. The Examiner can normally be reached from Monday-Friday, 9:00 AM - 5:30 PM Eastern Time. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Ms. Davienne Monbleau, can be reached at (571) 272-1945. The office fax number is 571-273-8300.

Any request for information regarding to the **status** of an application may be obtained from the **Patent Application Information Retrieval (PAIR) system**. Also, status information for published applications may be obtained from either Private PAIR or Public Pair. In addition, status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. If you have questions pertaining to the Private PAIR system, please contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

Lastly, paper copies of cited U.S. patents and U.S. patent application publications have ceased to be mailed to applicants with Office actions since June 2004. Paper copies of foreign patents and non-patent literature will continue to be included with office actions. These cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site (www.uspto.gov), from the Office of Public Records and from commercial sources. Applicants are referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197 for information on this policy.

Art Unit: 2893

Requests to restart a period for response due to a missing U.S. patent or patent application publications will not be granted.

/(Vikki) Hoa B Trinh/

Examiner, Art Unit 2893